

What is claimed is:

1. A duplex image forming device comprising:

an image forming device which includes a paper transportation path, a paper feed unit which transports a paper to the paper transportation path, a printing unit which prints an image onto the paper, a discharge tray where the paper printed with the image is discharged, a manual paper feed tray which is attached to a side of the image forming device, and a storage opening which is provided at a side of the image forming device and stores the manual paper feed tray; and

a reversible transportation unit which is inserted to a side of the image forming device to cover an upper part of the storage opening, and includes a reversible transportation path that is formed to pass through the storage opening for transporting out to an upstream side of the printing unit, the paper transported from a downstream side of the printing unit in the paper transportation path.

2. The duplex image forming device according to claim 1, wherein the reversible transportation unit further includes a plurality of means for transporting that are disposed along the reversible transportation path, and a part of at least one of the means for transporting is disposed in the storage opening.

3. The duplex image forming device according to claim 2, wherein the means for transporting are transportation rollers.

4. The duplex image forming device according to claim 1, wherein the paper transportation path is formed from the paper feed unit upward in a vertical direction and connected to the discharge tray.

5. The duplex image forming device according to claim 1, wherein the manual paper feed tray swings between a closed position disposed at the storage opening and an opened position disposed away from the storage opening.

6. The duplex image forming device according to claim 1, wherein an upper part and a lower part of the reversible transportation path are slanted, and the means for transporting are disposed at the slanting paths, respectively.

7. The duplex image forming device according to claim 1, wherein the reversible transportation unit includes a main body frame having a contacting surface that contacts against a side of the image forming device, and a motor which drives the means for transporting and is disposed protruding outward from the contacting surface of the main body frame so that at least a part of the motor is disposed in the image forming device when the reversible transportation unit is inserted into the image forming device.

8. The duplex image forming device according to claim 7, further comprising a cover member which covers the part that is protruding from the contacting surface of the motor.

9. The duplex image forming device according to claim 8, wherein the cover member is provided on the reversible transportation unit.

10. The duplex image forming device according to claim 1, wherein the reversible transportation unit includes a gear mechanism which transfers a drive from the motor, and a supporting plate which attaches the motor and the gear mechanism.

11. The duplex image forming device according to claim 10, wherein at least a part of the gear mechanism is disposed outward from the contacting surface.

12. The duplex image forming device according to claim 1, wherein a storage unit which stores the manual paper feed tray is formed on the main body frame of the reversible transportation unit.

13. The duplex image forming device according to claim 12, further comprising means for holding the manual paper feed tray under a state stored in the storage unit.

14. The duplex image forming device according to claim 7, wherein the image forming device further includes an opening formed at the side of the image forming device for inserting the part that is protruding outward from the contacting surface of the motor.

15. The duplex image forming device according to claim 14, wherein the image forming device further includes a cover plate which covers the opening.

16. A reversible transportation unit inserted into an image forming device, comprising:

a reversible transportation path which transports out to an upstream side of a printing unit, a paper transported from a downstream side of the printing unit in a paper transportation path of the image forming device;

wherein the reversible transportation path is formed to pass through a storage opening which stores a manual paper feed tray attached to the image forming device.

17. The reversible transportation unit according to claim 16, further comprising a plurality of means for transporting that are disposed along the reversible transportation path, and a part of at least one of the means for transporting is disposed in the storage opening.

18. The reversible transportation unit according to claim 17, wherein the means for transporting are transportation rollers.

19. The reversible transportation unit according to claim 16, wherein an upper part and a lower part of the reversible transportation path are slanting, and the means for transporting are disposed at the slanting path, respectively.

20. The reversible transportation unit according to claim 16, further comprising:

a main body frame which has a contacting surface that contacts against a side of the image forming device; and

a motor which drives the means for transporting and is disposed protruding outward from the contacting surface of the main body frame so that at least a part of the motor is disposed in the image forming device when the reversible transportation unit is inserted into the image forming device.

21. The reversible transportation unit according to claim 20, further comprising a cover member which covers the part that is protruding outward from the contacting surface of the motor.

22. The reversible transportation unit according to claim 16, further comprising:

a gear mechanism which transfers a drive from the motor; and
a supporting plate which attaches the motor and the gear mechanism.

23. The reversible transportation unit according to claim 22, wherein at least a part of the gear mechanism is disposed outward from the contacting surface.

24. The reversible transportation unit according to claim 16, wherein a storage unit is formed on the main body frame for storing the manual paper feed tray.

25. The reversible transportation unit according to claim 24, further comprising means for supporting the manual paper feed tray under a stored state in the storage unit.